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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,550	04/19/2006	Ichirou Satou	40221	3769

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EXAMINER	
FANG, PAKEE	

ART UNIT	PAPER NUMBER
4146	

NOTIFICATION DATE	DELIVERY MODE
11/06/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/576,550	SATOU ET AL.	
	Examiner	Art Unit	
	PAKEE FANG	4146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/08/2008 & 04/19/2006* .
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1 - 8 are presented for examination.**

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the application filed on 04/19/2006.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 09/08/2008 & 04/19/2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "*display portion driving control unit; sequential scanning drive; & interlaced scanning drive;"* must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be

removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Also, the drawings on figure 12 & 13 needs to be label as "Prior Art" as disclose by the specification.

Specification

5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract needs to be in a single paragraph on a separate sheet within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 – 8 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships in claims 1 - 8 are: "*the display portion driving control unit; the sequential scanning drive; & the interlaced scanning drive*".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, & 6 - 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamamura et al. (US Pub. 20040072589 A1).

Claim 1.

In regard to Claim 1, *a mobile terminal apparatus comprising;* See at least (Hamamura; Fig. 1) - for a mobile terminal apparatus.

a display portion to be driven by a voltage applied thereto; See at least (Hamamura; Fig. 1 & 8; [0184]) - for at least one display portion driven by a voltage applied thereto. "… first display driver portion 43 and second display driver portion 44 apply drive voltages to pixel electrodes in first display portion 5 and second display portion 20 in accordance with the data to be displayed…"

and a display portion driving control unit which changes driving operation of the display portion including at least one of a drive system and a driving frequency thereof, See at least (Hamamura; Fig. 1 & 8; [0184]) - for a control unit sends a frequency or signal to change the driving operation of the display at least on of a drive system. "Control portion 40 sends the control signal to first display driver portion 43 and second display driver portion 44, and reads the image data stored in first memory 42 and second memory 48 to provide the read data to first display driver portion 43 and second display driver portion 44, respectively."

so as to make driving condition of the display portion adapted to operation condition of the apparatus itself. See at least (Hamamura; Fig. 1 & 8; [0184]) – for a display portion adapted to the command condition of control unit or the device itself. "…in accordance with the data to be displayed on first display portion 5 and second display portion 20, and thus in accordance with the data read from first memory 42 and second memory 48."

Claim 6.

In regard to Claim 6, *wherein when the display portion driving control unit changes the driving operation,* See at least (Hamamura; Fig. 1, 5, 8, 10 & 11; [0182]) – for a control portion changes driving operation.

the display portion driving control unit changes display contents of the display portion in the vicinity of changing the driving operation. , See at least (Hamamura; Fig. 10 & 11; [0185], [0202], & [0211] – [0213]) – for a control unit changes display contents of the display portion in

the basis of the changing the driving operation.

Claim 7.

In regard to Claim 7, *wherein the display portion driving control unit changes at least one of the drive system, ,* See at least (Hamamura; Fig. 1, 5, 8, 10 & 11; [0182]) – for a control portion changes at least on of the driving system.

the driving frequency and the driving voltage of the display portion in accordance with the operation condition of the apparatus itself. See at least (Hamamura; Fig. 1 & 8; [0184]) - for a control unit sends a frequency or signal to change the driving operation of the display at least on of a drive system. "Control portion 40 sends the control signal to first display driver portion 43 and second display driver portion 44, and reads the image data stored in first memory 42 and second memory 48 to provide the read data to first display driver portion 43 and second display driver portion 44, respectively." Also see, "… first display driver portion 43 and second display driver portion 44 apply drive voltages to pixel electrodes in first display portion 5 and second display portion 20 in accordance with the data to be displayed…" for a driving voltage of the display portion in accordance with the operation condition of the device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2 – 5, & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable by Hamamura et al. (US Pub. 20040072589 A1) in view of Yoneda et al. (US Pub. 20010026260).

Claim 2.

In regard to Claim 2, *wherein the display portion driving control unit changes the drive system so as to drive the display portion by sequential scanning drive when movie display is performed, and to drive the display portion by interlaced scanning drive when another display is performed.* Hamamura discloses a control unit commands and configures the drive system circuitry for the display portion (Fig. 8 – 14; [0182] – [0184]), and the television or the cinema display (Fig. 16; [0103 – 0104], [0114] & [0247]), But fails to disclose the sequential scanning and interlaced scanning drive to drive the display portion when movie or another display is performed. However, Yoneda et al. discloses a sequential scanning mode and an interlace scanning mode for a display portion of a mobile device (Fig. 23 – 28 & Fig. 36 - 38; [0187 – 0191] & [0206 – 0215]) "a driving methods from driving methods according to interlace scanning and driving methods according to sequential scanning depending on the kind of data to

be displayed;" [0199]. Since, Hamamura and Yoneda inventions are the analogous art addressing a display portion of a mobile system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine the drive system for the display portion of Hamamura with the sequential scanning mode and interlace scanning mode of Yoneda to make the display portion much quicker to write and consumes less power, therefore, making the display less vulnerable to noise and other defects.

Claim 3.

In regard to Claim 3, *wherein the display portion driving control unit changes the drive system so as to drive the display portion by sequential scanning drive in a camera mode for operating a camera, and to drive the display portion by interlaced scanning drive in another operation mode.* Hamamura discloses a control unit commands and configures the drive system circuitry for the display portion (Fig. 8 – 14; [0182] – [0184]), and the camera mode for the operating camera (Fig. 16; [0072 - 0075], [0162] & [0241 - 0245]), But fails to disclose the sequential scanning for a camera mode and interlaced scanning drive to drive the display portion when another operational mode is performed. However, Yoneda et al. discloses a sequential scanning mode and an interlace scanning mode for a display portion of a mobile device base on the user's predetermined mode of operation on the device (Fig. 23 – 28 & Fig. 36 - 38; [0187 – 0191] & [0206 – 0215]) "a driving methods from driving methods according to interlace scanning and driving methods according to sequential scanning depending on the kind of data to be displayed;" [0199]. Since, Hamamura and Yoneda inventions are the analogous art addressing a display portion of a mobile system. Therefore, it would have been obvious for one of ordinary

skill in the art at the time of invention to combine the drive system for the display portion of the various mode of Hamamura with the sequential scanning mode and interlace scanning drive of Yoneda to make the display portion much quicker to read or write and consumes less power, therefore, making the display less vulnerable to noise and other defects.

Claim 4.

In regard to Claim 4, *wherein the display portion driving control unit changes the drive system of the display portion into the sequential scanning drive as soon as the camera mode is started, and changes the drive system of the display portion into the interlaced scanning drive as soon as the camera mode is terminated and shifted to another operation mode.* Hamamura discloses a control unit commands and configures the drive system circuitry for the display portion (Fig. 8 – 14; [0182] – [0184]), and the camera mode for the operating camera (Fig. 16; [0072 - 0075], [0162] & [0241 - 0245]), But fails to disclose the sequential scanning for a camera mode when started and interlaced scanning drive to drive the display portion when another operational mode is performed. However, Yoneda et al. discloses a sequential scanning mode and an interlace scanning mode for a display portion of a mobile device base on the user's predetermined mode of operation on the device (Fig. 23 – 28 & Fig. 36 - 38; [0187 – 0191] & [0206 – 0215]) "a driving methods from driving methods according to interlace scanning and driving methods according to sequential scanning depending on the kind of data to be displayed;" [0199]. Since, Hamamura and Yoneda inventions are the analogous art addressing a display portion of a mobile system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine the drive system for the display portion of the

various mode of Hamamura with the sequential scanning mode and interlace scanning drive of Yoneda to make the display portion much quicker to read or write and consumes less power, therefore, making the display less vulnerable to noise and other defects.

Claim 5.

In regard to Claim 5, *wherein when the display portion driving control unit changes the driving operation, the display portion driving control unit carries out the driving operation change in a period after scanning one screen in the display portion is completed and before scanning a next screen is started.* Hamamura discloses a control unit changes the driving operations of the system for the display portion (Fig. 8 – 14; [0182] – [0184]), But fails to disclose the control unit carries out the operation change in a period after scanning one screen is completed and before scanning a next screen is started. However, Yoneda et al. discloses a writing operation change after the completion of scanning one screen and before another the scanning of another screen for a display portion of a mobile device base on the user's predetermined preference. (Fig. 23 & Fig. 36 - 38; [0025]) "writing is carried out after total reset of all the scanning lines in the area to be written, the previous image is wholly erased before the writing, and the newly written image is easily recognizable" Since, Hamamura and Yoneda inventions are the analogous art addressing a display portion of a mobile system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine the operation change for the display portion of Hamamura with the writing operation change of the screen by Yoneda to make the changes of the display portion undetectable, therefore, making

the display less flickering to the human eye.

Claim 8.

In regard to Claim 8, *wherein the display portion driving control unit changes the drive system of the display portion into interlaced scanning drive or frame inversion drive when the apparatus itself is in a standby state.* Hamamura discloses a control unit commands and configures the drive system circuitry, an inversion processing portion for the display portion (Fig. 8 – 14; [0181] – [0184]), and the standby state for the device (Fig. 16; [0205 - 0209]), But fails to disclose the interlaced scanning drive to drive the display portion when standby state is performed. However, Yoneda et al. discloses a an interlace scanning mode for a display portion of a mobile device base on the user's predetermined mode of operation on the device (Fig. 23 – 28 & Fig. 37 - 38; [0020 – 0031] & [0187 – 0191] & [0210]) "FIG. 37 is a chart which shows an ordinary mode and power-saving modes in an interlace scanning mode;" [0069] & "a driving methods from driving methods according to interlace scanning … depending on the kind of data to be displayed;" [0199]. Since, Hamamura and Yoneda inventions are the analogous art addressing a display portion of a mobile system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine the drive system for the display portion of the standby mode of Hamamura with the interlace scanning drive of Yoneda to make the display portion consumes less power, therefore, making the display less vulnerable to noise and other defects.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAKEE FANG whose telephone number is (571)270-7219. The examiner can normally be reached on Monday-Friday 9AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patel Ramesh can be reached on (571)272-3688. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAKEE FANG/
Examiner, Art Unit 4146

/Ramesh B. Patel/
Supervisory Patent Examiner, Art Unit 4146